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CORRECTING FIEDEL, ONCE AGAIN: MONTE VERDE AND THE PEOPLING OF SOUTH AMERICA

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ABSTRACT. Corrections are made to Stuart Fiedel's (2022) recent errors and misrepresentations related to the late Pleistocene sites of Monte Verde and Huaca Prieta and to South American Fishtail projectile points.

KEYWORDS: Fishtail points, Huaca Prieta, Monte Verde, Pleistocene, South America.

Fiedel's (2022) recent article, which updates his views on the initial peopling of the Americas, continues to present misinformation on the Monte Verde site in Chile. We corrected his previous errors on the site (see Fiedel 1999; Dillehay et al. 1999a, 1999b, 2002). To set the record straight, we again redress inaccuracies on Monte Verde as well his comments on Huaca Prieta in Peru and Fishtail projectile points in South America.

Fiedel has spent the last two decades criticizing our research at Monte Verde (Fiedel 1999–2022). His criticism began with our large Volume 2 on the site, published in 1997 by the Smithsonian Institution Press (SIP). Unfortunately, the book had some discrepancies. In 2001, we learned from SIP that the majority of the discrepancies were caused by two problems: 1) the volume was the Press' first totally computer-generated book, which resulted in electronically-produced errors (e.g., wrongly-placed figures, off-setting data columns in tables, omission of paragraphs); and 2) none of the co-author's corrections of errors on proof sheets were incorporated in the published book (Ruth Spiegel, SIP associate editor, personal communication, 2001). In 2002, SIP produced an errata booklet to correct the discrepancies (Dillehay 2002), noting that: "In March 2001 Professor Dillehay brought to our attention a number of alterations he and his contributors had marked on revised page proofs that were not reflected in the published edition of Volume 2" (Editors 2002: iii). Fiedel (1999) used these technical issues to criticize the book.

In his recent article, Fiedel claims that the artifacts at MV-II are poorly provenienced, including "three unprovenienced El Jobo-like bifaces [projectile points] (Fiedel 2022:17)." This is incorrect. Artifact proveniences are detailed in the 1997 tome and other publications. MV-II is an intact, single component site with all artifacts and features

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embedded in or lying on a 2–3 cm thick, buried use-surface of the contemporaneous sandy terrace (stratum MV-7) and adjacent shoreline (stratum MV-6) of a small ancient creek in a cool temperate rainforest. The archaeological materials are sealed and overlaid by a fibrous, anaerobic peat layer (stratum MV-5) that preserved the site. All artifacts, including the three projectile points, and features are directly associated with this use-surface and have been extensively documented and presented, including nomenclature on specific excavation areas, units and artifact numbers (e.g., A-12-5-2, respectively corresponding to area, unit, artifact type and number) for wood, bone, lithic and other artifacts and features, all of which are listed in more than 100 pages of provenience tables and depicted on maps and in figures (see Dillehay 1989, 1997). In addition, when describing and analyzing artifacts and features, most authors provided specific catalog numbers and contextual proveniences in their respective chapters (e.g., Collins 1997). This nomenclature and documentation are described in the chapter on "Research Design and Methods" in the 1997 volume (Dillehay 1997: 53–72).

Fiedel's issues with provenience primarily relate to changing artifacts numbers (e.g., projectile point midsection initially referred to as A-1-36 in the field and later converted to A-100036 for computer analysis) and the use of different artifact mapping programs (i.e., SYMAP, CMAP, SURFER, AUTOCAD, and SPSS) resulting in variable formats of data presentation. The project employed computer and mapping programs that required an equal number of digits for data processing, thus 000s were added to the original artifact numbers, such as shown above for the point midsection. Perhaps we should have provided conversion tables for the altered numbers, but we already had been asked by SIP to reduce the length of the original manuscript by 110,000 words: we thus saw no need to provide an additional 80–90 pages.

Fiedel (2022: 14, 17) states that "the Monte Verde II "site" is a unique, bizarre congeries of gravel, wood and peat, within which lay a few indubitable but poorly provenienced stone tools." A more accurate term to describe Monte Verde II (MV-II) is "extraordinary" for the wet geological conditions that preserved a wide range of organic remains rarely encountered archaeologically. (Fiedel erroneously states that the site is "near the sea"; it was at least 60 km away at the time of human occupation.) The preserved cultural materials are comprised of cut and modified wood, pieces of well-preserved animal bone, hide and meat (Tuross 1997), human footprints, one with clear toe and heel impressions in clay and two others in sandy mud, single and double S-slipped knotted reeds wrapped around burned and cut wooden stakes (Adovasio 1997) and timbers of a collapsed tent-like frame, clay- and rock-lined hearths and braziers, an assortment of unifacial, bifacial, grooved bola stones, and ground stone tools, ash and charcoal lenses, and a wide array of local and non-local medicinal and comestible plant remains (Ramirez 1989), all studied in the field and laboratory by an interdisciplinary and international team of specialists. In combination, these artifacts and features depict a variety of campsite activity areas that fit the socio-economic behavioral expectations of an early hunter-gatherer group in the wet, forested environment of the site area. Despite the wide array of cultural materials at the site, Fiedel defines the archeological evidence on only the basis of the three projectile point fragments. We placed less importance on stone tools and more on perishables and features. For this reason, the first data chapters in the 1997 volume presented site features, wood artifacts, architectural remains, cordage, and economic plants and afterwards the lithics and faunal remains.

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Fiedel constantly refers to only Dillehay as the excavator and analyzer of the archaeological data at Monte Verde, when in fact an interdisciplinary team of more than seventy experienced professional archaeologists and non-archaeological specialists from the United States and several other countries participated in the field and laboratory work over the years. Excavations at the site were methodologically slow, tedious, highly cautious and very difficult, especially in the long-term treatment of organic artifacts with preservative chemicals (Dillehay 1997: 831–840). We were acutely aware of the need for extreme care with sensitive cultural materials in the wet context of the site. In a collaborative interdisciplinary fashion, we employed strict and critical evaluation of all cultural and natural context at MV-II. In fact, we were often overly focused on the methodology, taphonomy and integrity of the site, even excavating in non-cultural areas to compare the contemporaneous non-site stratigraphy and its paleo-ecological context and content with that of the cultural areas, a first in archaeology.

Dillehay initially studied the stone tools from MV-II and later with Carlos Ocampo, a Chilean lithic specialist. In 1980, Michael Collins (1997), a well-known lithic expert, initiated his study of the site's geo-archaeological context and lithic collection and later developed the lithic typology that we have continued to use. The so-called "cracked stones" at MV-II (Fiedel 2022: 17) are unifacial tools, many modified by edge-trimming and/or retouch, which are typical of several areas and time periods in South America (e.g., Bird et al. 1985; Richardson 1978; Bryan 1986). In addition, there are more than seventy stones that are well-worked bifacially and unifacially and have clear bulbs of percussion and/or striking platforms (see Collins 1997; Dillehay et al. 2015, 2019, 2021). There also are several well-worked grinding stones. More than forty stone tools are made of exotic raw materials: for example, the three projectile point fragments, a bola stone with a full-circumference groove, a large quartz biface, a slate tool probably used as a drill, hammerstones, and several flakes. We understand that the generally poor-quality of photographs of the stone tools in the 1997 volume do not do justice to the human workmanship of these artifacts. This issue will be remedied in a forthcoming publication with high-resolution color photos of the lithics and other artifacts.

In regard to the older, deeper contexts in the Monte Verde I and Chinchihuapi area, Fiedel failed to mention that we have stated that the current data are inconclusive and possibly represent a human presence before ~14,500–15,000 cal BP (see Dillehay 1997: Dillehay et al. 2015, 2019, 2021). Over the years, we have dismissed several anomalies and lithics as cultural in these sites. Occasionally in the deeper levels of these sites, there are clear human-worked stone tools associated with burned features, animal bones (i.e., American horse, gomphothere) and plant remains (e.g., chestnuts) forming what appear to be thin (1–3 cm), cultural use-surfaces. However, we have not rejected or accepted them as conclusive evidence of human-related activity because more data are required.

Collins also studied the stone tool assemblage from the late Pleistocene, pre-mound levels at Huaca Prieta, which Fiedel (2022: 16) calls "stone spalls." The assemblage is comprised of large cobble flakes with clear striking platforms and bulbs of percussion and micro-use wear associated with the remains of fish scales and edible plant fibers (Dillehay et al. n.d.). The stone tools from the site are in direct association with burned areas, ash and charcoal lenses, hearths, red ochre, burned and cut sea lion and shark bones, and fish and shellfish remains (Dillehay et al. 2012a, 2012b, 2017; Dillehay 2017). Fiedel erroneously states that the late Pleistocene artifacts are from "the base of the Huaca Prieta mound." This is

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incorrect. They are from intact, non-mound, cultural strata of the remnant Pleistocene terrace that are 1–2.5 m below the base of the mound. The overlying mound, radiocarbon dated by more 100 assays, was built on the terrace between ~7800–4000 cal BP.

In an attempt to dismiss the radiocarbon dates at Huaca Prieta, Fiedel (2022: 16) notes that "As for the Huaca Prieta radiocarbon dates, both old wood [e.g., driftwood] and marine upwelling effects are well-known problems in this region (e.g., Kennett et al. 2002)." Fiedel leads the reader to believe that the study by Kennett et al. is directly applicable to the Huaca Prieta area, yet it was 1600 km farther south. Old wood and upwelling are not problems affecting datable organics at Huaca Prieta. Furthermore, although well-reasoned, the study by Kennett et al. provided no empirical evidence for radiocarbon dates altered by old wood and upwelling and did not conduct taphonomic analysis of driftwood along the Pacific shoreline and of old wood in interior forests.

Driftwood on the north coast, as well as the south coast, has a short use-life due to destructive wave action by storm surges, tsunamis, and El Nino events, which reduce it to unusable, small slivers (personal observation and personal communication with fisherfolks, 1975–2021). Fresh driftwood is replenished periodically by small- to moderate-size rivers depositing brush and small branches along the shoreline which can remain relatively intact for months or years, but eventually it is rendered useless, making it nearly impossible for wood hundreds or thousands of years old to survive and be used as firewood. As for the possibility of old wood collected in interior forests, why procure old when fresh, more economically usable wood is available?

On the north coast of Peru, there is a marine reservoir effect of an average of ~575 years for assays on marine shell (c.f., Jones 2009; Butzin et al. 2020; Heaton et al. 2020) and perhaps animal bone (e.g., sea lion) but not for terrestrial wood, charcoal, plants, and animal bone. The published AMS dates on wood charcoal and other organics for the chrono-stratigraphically intact, late Pleistocene cultural levels below the Huaca Prieta mound included a sea lion bone, which was dated and corrected for the reservoir effect at 13,554–13,828 cal BP, a deer bone processed at 14,005–14,477 cal BP, a bean seed of non-domesticated *Phaseolus* sp. assessed at 14,386–15,143 cal BP (see Dillehay et al. 2012a, 2012b for details and other assays), and recently a new date on a twined reed artifact at 14,400–14,800 cal BP (D-AMS 044324).

Fiedel (2022:17) emphasizes that "the amazingly uniform Fishtail (or Fell's) points found from Mexico to Patagonia, including many finds along both the Pacific and Atlantic coasts (Grosjean et al. 2005), are unmistakably derived from Clovis (Morrow and Morrow 1999; Pearson 2004, 2017; Nami 2021)." Nami's publications do not state that Fishtail points are derived from Clovis. Nami offers several possibilities to explain technological similarities between fluted points in North and South America, noting that both types "might be more closely related to older bifacial technologies that existed in North America prior to the CC [Clovis] points… suggest[ing] a possible ancestor-descendent relationship" (Nami 2021: 66; c.f. Suarez 2015). Besides Nami, the most reliable experts on Fishtail points are South American archaeologists, particularly Gustavo Politis (1991), Luis Borrero (2021), Nora Flegenheimer, Laura Miotti, and Natalia Mazzia (Flegenheimer et al. 2013), and Rafael Suarez (Suarez 2015; Suarez and Cardillo 2019), among others. None of these South Americans view Fishtail points as derived from Clovis technology.

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To conclude, Fiedel fails to produce any empirical evidence to support his recent suppositions. An accurate understanding of Monte Verde and Huaca Prieta cannot be deduced from his opinions. We encourage colleagues to construct their own conclusions rather than rely on a view based on limited experience with late Pleistocene sites and from a vision of early hunter-gatherer culture based primarily on projectile points.

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